

IN THE CLAIMS

The pending claims are as follows:

1. (Previously Presented) A method for extracting and processing video content encoded in a rendered color space (RGB) to be emulated by an ambient light source, comprising:

(1) extracting color information from a video signal (AVS) that encodes at least some of said video content in said rendered color space;

(2) transforming said color information to an unrendered color space (XYZ) via matrix transformations; and

(3) transforming said color information from said unrendered color space to a second rendered color space (R'G'B') via matrix multiplication so as to allow driving said ambient light source to provide emulative ambient lighting drawn from said video content.

2. (Previously Presented) The method of claim 1, wherein step (1) additionally comprises decoding said video signal into a set of frames.

3. (Previously Presented) The method of claim 1, wherein step (1) additionally comprises extracting an average color (R_{AVG}) from said color information.

4. (Previously Presented) The method of claim 1, wherein step (1) additionally comprises at least one extraction of said color information from an extraction region (R1).

5. (Previously Presented) The method of claim 4, wherein step (1) additionally comprises using said extraction of said color information transformed in the second rendered color space to broadcast ambient light (L4) from said ambient light source adjacent said extraction region.

6. (Previously Presented) The method of claim 5, wherein step (1) additionally comprises extracting an average color (R_{AVG}) from said color information.

7. (Original) The method of claim 1, additionally comprising performing a gamma correction to said second rendered color space.

8. (Previously Presented) A method for extracting and processing video content encoded in a rendered color space (RGB) to be emulated by an ambient light source, comprising:

- (1) extracting color information from a video signal (AVS) that encodes at least some of said video content in said rendered color space;
- (2) transforming said color information to an unrendered color space (XYZ); and

(3) transforming said color information from said unrendered color space to a second rendered color space ($R'G'B'$) so formed as to allow driving said ambient light source, wherein steps (2) and (3) additionally comprise matrix transformations of primaries (RGB, $R'G'B'$) of said rendered color space and second rendered color space to said unrendered color space using first and second tristimulus primary matrices (M_1 , M_2); and deriving a transformation of said color information into said second rendered color space ($R'G'B'$) by matrix multiplication of said primaries of said rendered color space, said first tristimulus matrix, and the inverse of said second tristimulus matrix $(M_2)^{-1}$.

9. (Original) The method of claim 8, wherein said unrendered color space is one of CIE XYZ; ISO RGB defined in ISO Standard 17321; Photo YCC; and CIE LAB.

10. (Previously Presented) The method of claim 8, wherein step (1) additionally comprises extracting an average color (R_{AVG}) from said color information.

11. (Previously Presented) The method of claim 10, wherein step (1) additionally comprises at least one extraction of said color information from an extraction region (R_1).

12. (Previously Presented) The method of claim 11, wherein step (1) additionally comprises using said extraction of said color information transformed in the second rendered color space to broadcast ambient light (L4) from said ambient light source adjacent said extraction region.

13. (Previously Presented) The method of claim 1, wherein steps (1), (2), and (3) are substantially synchronous with said video signal (AVS).

14. (Original) The method of claim 1, additionally comprising broadcasting ambient light (L1) from said ambient light source using said color information in said second rendered color space.

15. (Previously Presented) A method for extracting and processing border region video content from a rendered color space (RGB) to be emulated by an ambient light source, comprising:

(1) extracting color information from a video signal (AVS) that encodes at least some of said video content in said rendered color space, after decoding said video signal into individual frames;

(2) extracting an average color (R_{AVG}) from said color information from an extraction region (R1) in each of said individual frames;

(3) transforming said average color to an unrendered color space (XYZ) via matrix transformations;

(4) transforming said average color from said unrendered color space to a second rendered color space (R'G'B') via matrix multiplication so as to allow driving said ambient light source; and

(5) using said average color transformed in said second rendered color space to broadcast ambient light (L4) from said ambient light source adjacent said extraction region to provide emulative ambient lighting drawn from said border region video content.

16. (Previously Presented) The method of claim 15, wherein steps (1), (2), (3), (4), and (5) are substantially synchronous with said video signal (AVS).

17. (Previously Presented) The method of claim 15, wherein steps (3) and (4) additionally comprise matrix transformations of primaries (RGB, R'G'B') of said rendered color space and second rendered color space to said unrendered color space using first and second tristimulus primary matrices (M_1 , M_2); and deriving a transformation of said color information into said second rendered color space (R'G'B') by matrix multiplication of said primaries of said rendered color space, said first tristimulus matrix, and the inverse of said second tristimulus matrix $(M_2)^{-1}$.

18. (Previously Presented) A method for extracting and processing border region video content from a rendered color space (RGB) to be emulated by an ambient light source, using a colorimetric estimate, comprising:

(1) extracting color information from a video signal (AVS) that encodes at least some of said video content in said rendered color space, after decoding said video signal into individual frames;

(2) extracting a colorimetric estimate from said color information from an extraction region (R1) in each of said individual frames;

(3) transforming said colorimetric estimate to an unrendered color space (XYZ) via matrix transformations;

(4) transforming said colorimetric estimate from said unrendered color space to a second rendered color space (R'G'B') via matrix multiplication so as to allow driving said ambient light source; and

(5) using said colorimetric estimate transformed in said second rendered color space to broadcast ambient light (L4) from said ambient light source adjacent said extraction region to provide emulative ambient lighting drawn from said border region video content.

19. (Previously Presented) The method of claim 18, wherein steps (1), (2), (3), (4), and (5) are substantially synchronous with said video signal (AVS).

20. (Previously Presented) The method of claim 18, wherein steps (3) and (4) additionally comprise matrix transformations of primaries (RGB, R'G'B') of said rendered color space and second rendered color space to said unrendered color space using first and second tristimulus primary matrices (M_1 , M_2); and deriving a transformation of said color information into said second rendered color space (R'G'B') by matrix multiplication of said primaries of said rendered color space, said first tristimulus matrix, and the inverse of said second tristimulus matrix $(M_2)^{-1}$.